

SequenceDec208.txt  
SEQUENCE LISTING

<110> CropDesign N.V.

<120> Seedy1 sequence for making plants having changed growth characteristics

<130> CD-105-PCT

<150> US 60/528,113  
<151> 2003-12-09

<150> EP 03104280.7  
<151> 2003-11-19

<160> 18

<170> PatentIn version 3.3

<210> 1  
<211> 1428  
<212> DNA  
<213> Nicotiana tabacum

<220>  
<221> misc\_feature  
<223> seedy1 coding sequence (CDS0689)

<400> 1  
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ctgaaacccc tttcgggttag gccatcagat tcctttgaat ctgatttgtc aagtaaggaa 180  
aatcaaactc ctttatttga gaattcatct gttaatctct catctccggt acccataaag 240  
ccacttaacc ctaatggggc tctggaaaat tcaagactca agccgaacaa gcccaattcc 300  
aaacagagtc ttgatgagat ggcggctaga aagagcggaa agggaaatga tttccgtgat 360  
gagaagaaaa tagacgagga aattgaagaa attcagatgg agattagtag gttgagttca 420  
agattagagg ctttgagaat tgaaaaggct gagaaaactg ttgctaagac tgttgaaaag 480  
cgaggaaggg ttgtggcagc aaagtttatg gagccaaaac aaagtgttat taagattgaa 540  
gagcgtatat caatgagtgc aagaacaaag gtggagcaga gaaggggtct tagtttagga 600  
ccatctgaga tttttactgg aacgcggcgg cgaggggtga gtatggggcc atcagatatt 660

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ctagcagggg caacaaaggc acggcaattg ggaaagcaag agatgattat tactcctatt 720
cagccaatac aaaacaggcg aaagtcgtgt ttttggaagc ttcaagagat tgaagaagag 780
ggaaaaagtt caagccttag tcctaaatca agaaaaactg ctgcaagaac aatgggttaca 840
acaaggcagg cagttactac aattgcatca aagaagaatt tgaaaaaaga tgatggactt 900
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aagaagcccc agaggccggg gaggggttg gctagtaggt ataatcagag tacaattcag 1020
tcatcagtag tgagaaagag gtcctttacct gaaaatgata aggatgagag taagagaaat 1080
gataagaaac ggtcgttatc tgtagggaaa acgcgtgtgt ctcaaactga gagcaagaat 1140
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atgatagagt tgataggcaa gaaatcggtt ttcagtagtg atgaagataa ggagccacct 1380
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<210> 2  
 <211> 475  
 <212> PRT  
 <213> Nicotiana tabacum

<220>  
 <221> MISC\_FEATURE  
 <223> seedy1 protein (CDS0689)

<400> 2

Met Ser Val Leu Gln Tyr Pro Glu Gly Ile Asp Pro Ala Asp Val Gln  
 1 5 10 15

Ile Trp Asn Asn Ala Ala Phe Asp Asn Gly Asp Ser Glu Asp Leu Ser  
 20 25 30

Ser Leu Lys Arg Ser Trp Ser Pro Leu Lys Pro Leu Ser Val Arg Pro  
 35 40 45

Ser Asp Ser Phe Glu Ser Asp Leu Ser Ser Lys Glu Asn Gln Thr Pro  
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50

55

60

Leu Phe Glu Asn Ser Ser Val Asn Leu Ser Ser Pro Leu Pro Ile Lys  
65 70 75 80

Pro Leu Asn Pro Asn Gly Ala Leu Glu Asn Ser Arg Leu Lys Pro Asn  
85 90 95

Lys Pro Asn Ser Lys Gln Ser Leu Asp Glu Met Ala Ala Arg Lys Ser  
100 105 110

Gly Lys Gly Asn Asp Phe Arg Asp Glu Lys Lys Ile Asp Glu Glu Ile  
115 120 125

Glu Glu Ile Gln Met Glu Ile Ser Arg Leu Ser Ser Arg Leu Glu Ala  
130 135 140

Leu Arg Ile Glu Lys Ala Glu Lys Thr Val Ala Lys Thr Val Glu Lys  
145 150 155 160

Arg Gly Arg Val Val Ala Ala Lys Phe Met Glu Pro Lys Gln Ser Val  
165 170 175

Ile Lys Ile Glu Glu Arg Ile Ser Met Ser Ala Arg Thr Lys Val Glu  
180 185 190

Gln Arg Arg Gly Leu Ser Leu Gly Pro Ser Glu Ile Phe Thr Gly Thr  
195 200 205

Arg Arg Arg Gly Leu Ser Met Gly Pro Ser Asp Ile Leu Ala Gly Thr  
210 215 220

Thr Lys Ala Arg Gln Leu Gly Lys Gln Glu Met Ile Ile Thr Pro Ile  
225 230 235 240

Gln Pro Ile Gln Asn Arg Arg Lys Ser Cys Phe Trp Lys Leu Gln Glu  
245 250 255

Ile Glu Glu Glu Gly Lys Ser Ser Ser Leu Ser Pro Lys Ser Arg Lys  
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260

265

270

Thr Ala Ala Arg Thr Met Val Thr Thr Arg Gln Ala Val Thr Thr Ile  
 275 280 285

Ala Ser Lys Lys Asn Leu Lys Lys Asp Asp Gly Leu Leu Ser Ser Val  
 290 295 300

Gln Pro Lys Lys Leu Phe Lys Asp Leu Glu Lys Ser Ala Ala Ala Asn  
 305 310 315 320

Lys Lys Pro Gln Arg Pro Gly Arg Val Val Ala Ser Arg Tyr Asn Gln  
 325 330 335

Ser Thr Ile Gln Ser Ser Val Val Arg Lys Arg Ser Leu Pro Glu Asn  
 340 345 350

Asp Lys Asp Glu Ser Lys Arg Asn Asp Lys Lys Arg Ser Leu Ser Val  
 355 360 365

Gly Lys Thr Arg Val Ser Gln Thr Glu Ser Lys Asn Leu Gly Thr Glu  
 370 375 380

Ser Arg Val Lys Lys Arg Trp Glu Ile Pro Ser Glu Ile Val Val His  
 385 390 395 400

Gly Asn Thr Glu Ser Glu Lys Ser Pro Leu Ser Ile Ile Val Lys Pro  
 405 410 415

Asp Leu Leu Pro Arg Ile Arg Ile Ala Arg Cys Val Asn Glu Thr Leu  
 420 425 430

Arg Asp Ser Gly Pro Ala Lys Arg Met Ile Glu Leu Ile Gly Lys Lys  
 435 440 445

Ser Phe Phe Ser Ser Asp Glu Asp Lys Glu Pro Pro Val Cys Gln Val  
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Leu Ser Phe Ala Glu Glu Asp Ala Glu Glu Glu  
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465

470

<210> 3  
<211> 1336  
<212> DNA  
<213> Oryza sativa

<220>  
<221> misc\_feature  
<223> seedy1 coding sequence

<400> 3  
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gccgagatcg gccacatcga ggcggagatc ctgcgctctt cgtcccggct ccaccatctc 240  
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aaggtgaggc cccggccgag gggcctcagc ctcgggcccc tggatgtgat ctccatcgtc 360  
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cagcgtcgca ggggcgtcag cctcggggccg ttggagatcc accacggcgt cggcagcaag 600  
gcaccagcgg cggcgcgagc caagccgttc accaccaagc tcaacgccat tcgagaagaa 660  
acccgaccct ccaagcaatt cgccgtcccc gccaaagccat ggccgtcgag caatacaagg 720  
cagacactgg actcgaggca aggaacagca gcaagtcgag cgaaggcgag gagcccgagc 780  
cccaggccca ggaggcaatc caatggcaag gctactgaca caaggggagg caacaagggtg 840  
gtggatgagc tcaagcccaa aggtgcgtcg tcaagtcaga gcggcagcgc cgccgccgcc 900  
gccactgcca agaggatggc ggggagctcc aagatgaggg tcatcccag cgcgtacagc 960  
ctcactcctg gcgcttcctt tggaagcagt ggagcacagg agaggcgacg caagcagtct 1020  
ctcccaggat catcagggga tgcgaaccag aatgaggaaa tcagagcgaa ggtcatcgag 1080  
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gccgaattgg tcgggaagcg ctcgttcttc acggctgcag ccgaggacgg gcgggcgctc 1260  
gacgtcgaag cacccgaggc ggctgcagaa gcttgagatg aaccaccatg gtttgatccg 1320  
ttccttccat cagctc 1336

<210> 4  
<211> 431  
<212> PRT  
<213> Oryza sativa

<220>  
<221> MISC\_FEATURE  
<223> seedy1 protein

<400> 4

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1 5 10 15

Ala Phe Asp Asp Ser Ser Cys Ser Arg Ser Ala Trp Leu Pro Gln Ser  
20 25 30

Pro Ala Val Ala Ala Val Arg Lys Gly Asp Lys Glu Asn His Arg Pro  
35 40 45

Glu Val Val Asp Val Ala Ala Gly Tyr Asp Val Glu Ala Glu Ile Gly  
50 55 60

His Ile Glu Ala Glu Ile Leu Arg Leu Ser Ser Arg Leu His His Leu  
65 70 75 80

Arg Val Ser Lys Gln Pro Glu Pro Asn Arg Asp Asp Ala Pro Met Gly  
85 90 95

Glu Met Val Ala Lys Val Arg Pro Arg Pro Arg Gly Leu Ser Leu Gly  
100 105 110

Pro Leu Asp Val Ile Ser Ile Val Asn Arg Glu Lys His Pro Leu Arg  
115 120 125

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Thr Lys Gln Pro Pro Ala Thr Arg Gly Arg Gly Leu Ser Leu Gly Pro  
 130 135 140  
 Met Glu Ile Ala Ala Ala Asn Pro Arg Val Pro Ala Ala Ala Gln His  
 145 150 155 160  
 Gln Gln Gln Gln Arg Ala Gly Thr Ala Arg Ile Leu Lys Pro Ile Lys  
 165 170 175  
 Glu Pro Pro Val Gln Arg Arg Arg Gly Val Ser Leu Gly Pro Leu Glu  
 180 185 190  
 Ile His His Gly Val Gly Ser Lys Ala Pro Ala Ala Ala Arg Ala Lys  
 195 200 205  
 Pro Phe Thr Thr Lys Leu Asn Ala Ile Arg Glu Glu Thr Arg Pro Ser  
 210 215 220  
 Lys Gln Phe Ala Val Pro Ala Lys Pro Trp Pro Ser Ser Asn Thr Arg  
 225 230 235 240  
 Gln Thr Leu Asp Ser Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala  
 245 250 255  
 Arg Ser Pro Ser Pro Arg Pro Arg Arg Gln Ser Asn Gly Lys Ala Thr  
 260 265 270  
 Asp Thr Arg Gly Gly Asn Lys Val Val Asp Glu Leu Lys Pro Lys Gly  
 275 280 285  
 Ala Ser Ser Ser Gln Ser Gly Ser Ala Ala Ala Ala Ala Thr Ala Lys  
 290 295 300  
 Arg Met Ala Gly Ser Ser Lys Met Arg Val Ile Pro Ser Arg Tyr Ser  
 305 310 315 320  
 Leu Thr Pro Gly Ala Ser Leu Gly Ser Ser Gly Ala Gln Glu Arg Arg  
 325 330 335

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Arg Lys Gln Ser Leu Pro Gly Ser Ser Gly Asp Ala Asn Gln Asn Glu  
340 345 350

Glu Ile Arg Ala Lys Val Ile Glu Pro Ser Asn Asp Pro Leu Ser Pro  
355 360 365

Gln Thr Ile Ser Lys Val Ala Glu Met Leu Pro Lys Ile Arg Thr Met  
370 375 380

Pro Pro Pro Asp Glu Ser Pro Arg Asp Ser Gly Cys Ala Lys Arg Val  
385 390 395 400

Ala Glu Leu Val Gly Lys Arg Ser Phe Phe Thr Ala Ala Ala Glu Asp  
405 410 415

Gly Arg Ala Leu Asp Val Glu Ala Pro Glu Ala Val Ala Glu Ala  
420 425 430

<210> 5  
<211> 1860  
<212> DNA  
<213> Medicago trunculata

<220>  
<221> misc\_feature  
<223> seedy1 coding sequence

<400> 5  
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aatcacatcg gagcgtgtat gagtagccgt ttcacatcca acggccagta agagcgtaac 180  
tttattttctt ccctcttcaa tctccaacgg tcacataatc tcttccaaat acaaataatt 240  
ccctctttca acctcactct tcattttctt aacccaaacc caaaaaacta atcagattct 300  
tcttaaattct tgaaaccttt ctcccaaag cacttaaata aaaaagcact taaccatgaa 360  
taacacaaac aacaacaaca ttcttcttca ttccacacag gttcaagtgt ggaacaacgc 420  
agcattcgat ggtgaagatt tcgccatgaa ttcattcttct gattccatca aagagaatct 480



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tgcggaaatt gaaagtgaaa ttaagcgatt aacttcgaag ctggaattgc ttcgtgttga	600
aaaagctgaa agaaaaatcg cttctgaaaa gcgtgttagt ggaattggta ctggaagaat	660
agtagcagcg aagtttatgg aaccgaagaa aaacgttaca ccgaaacgaa acggtgtcgt	720
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taattggaga agagggatga gtttaggtcc gatggagatt gccgggaaag tgatggcacc	840
gccggcgatg acgattactc cggcgacggt gaatcggagg aagtcttggt tctggaaacc	900
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atcttgTTTT ttgaaacctc aagaaagttg tgaagaaaat cgaagaaaaa cgatttgcaa	1020
accgaatttg aatttgaatt caaattcagt taattctgcg gttggatcga ttaagcgtgt	1080
gaagaagaaa gatgaagaaa ttgctcaggt tcaaccgaag aagctgtttg aaggtgaaaa	1140
atcagtgaag aaatcgttga aacaaggtag aattgttgca agccggtata attccggtgg	1200
tggtggtggt gatgcgagga aaagatcgtt ttcggagaat aataagggtt tagggagtga	1260
aatcagggct aagaagagat gggagatacc aattgaagaa gtggatgtga gtggttttgt	1320
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tgaaataata acaacaagca tgtgtcttgc ttaataattg tatattgttt tgtttgtttt	1740
ataatgatat ggatttaatt tgtatacaca atataatata gtatgcattg agagagtttt	1800
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<210> 6  
 <211> 394  
 <212> PRT  
 <213> Medicago trunculata

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<220>  
 <221> MISC\_FEATURE  
 <223> seedy1 protein

<400> 6

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 1 5 10 15

Gln Val Trp Asn Asn Ala Ala Phe Asp Gly Glu Asp Phe Ala Met Asn  
 20 25 30

Ser Ser Ser Asp Ser Ile Lys Glu Asn Leu Asn Pro Ser Ala Phe Asn  
 35 40 45

Ile Val Pro Ser Ser Asn Lys Arg Thr Ile Asp Asp Glu Ile Ala Glu  
 50 55 60

Ile Glu Ser Glu Ile Lys Arg Leu Thr Ser Lys Leu Glu Leu Leu Arg  
 65 70 75 80

Val Glu Lys Ala Glu Arg Lys Ile Ala Ser Glu Lys Arg Val Ser Gly  
 85 90 95

Ile Gly Thr Gly Arg Ile Val Ala Ala Lys Phe Met Glu Pro Lys Lys  
 100 105 110

Asn Val Thr Pro Lys Arg Asn Gly Val Val Phe Lys Glu Glu Thr Pro  
 115 120 125

Lys Arg Asn Gly Val Val Ser Asp Thr Pro Lys Ser Arg Val Asn Trp  
 130 135 140

Arg Arg Gly Met Ser Leu Gly Pro Met Glu Ile Ala Gly Lys Val Met  
 145 150 155 160

Ala Pro Pro Ala Met Thr Ile Thr Pro Ala Thr Val Asn Arg Arg Lys  
 165 170 175

Ser Cys Phe Trp Lys Pro Gln Glu Ser Cys Glu Val Met Pro Ser Gly  
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180

185

190

Ile Thr Pro Ala Thr Val Asn Arg Arg Lys Ser Cys Phe Leu Lys Pro  
 195 200 205

Gln Glu Ser Cys Glu Glu Asn Arg Arg Lys Thr Ile Cys Lys Pro Asn  
 210 215 220

Leu Asn Leu Asn Ser Asn Ser Val Asn Ser Ala Val Gly Ser Ile Lys  
 225 230 235 240

Arg Val Lys Lys Lys Asp Glu Glu Ile Ala Gln Val Gln Pro Lys Lys  
 245 250 255

Leu Phe Glu Gly Glu Lys Ser Val Lys Lys Ser Leu Lys Gln Gly Arg  
 260 265 270

Ile Val Ala Ser Arg Tyr Asn Ser Gly Gly Gly Gly Gly Asp Ala Arg  
 275 280 285

Lys Arg Ser Phe Ser Glu Asn Asn Lys Gly Leu Gly Ser Glu Ile Arg  
 290 295 300

Ala Lys Lys Arg Trp Glu Ile Pro Ile Glu Glu Val Asp Val Ser Gly  
 305 310 315 320

Phe Val Met Leu Pro Lys Ile Ser Thr Met Arg Phe Val Asp Glu Ser  
 325 330 335

Pro Arg Asp Ser Gly Ala Val Lys Arg Val Ala Glu Leu Asn Gly Lys  
 340 345 350

Arg Ser Tyr Phe Cys Asp Glu Asp Glu Glu Glu Arg Val Met Val Glu  
 355 360 365

Glu Glu Gly Gly Ser Val Cys Gln Val Leu Asn Phe Ala Glu Asp Asp  
 370 375 380

Asp Asp Asp Asp Asp Tyr Gly Glu Gln Gly  
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385

390

<210> 7  
 <211> 674  
 <212> DNA  
 <213> Saccharum sp.

<220>  
 <221> misc\_feature  
 <223> seedy1 coding sequence (partial 5' end)

<220>  
 <221> misc\_feature  
 <222> (362)..(362)  
 <223> n can be a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (372)..(372)  
 <223> n can be a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (674)..(674)  
 <223> n can be a, c, g or t

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 gaagcaggaa tccctccgct cccagccgcc tcctccgctc acccatcgat cgatcgctccg 120  
 tccggtccag ggggctctcc ggcggcggtg gcgatggagg aggacccgct catcccgtg 180  
 gtgcacgtct ggaacaacgc cgccttcgac cacgcctcct cctccgcgtg gcacgcccac 240  
 tcccctgtgc ccgcgagcgc acgtcgcgag gcggaggggg acaaggagaa ccaccgcccc 300  
 gaccccgacc ccgacgtcga ggcggagatc ggccacatcg aggcggagat cctgcgcttg 360  
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 gtcgcgcccc cgcccgcggc gaaggcgaaa gcggcgggcg cggcgcggct gcggacgcgg 480  
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 gacaaccagc agcagcagcc gcgtgccgcg caggggtctga agccgatcaa gcaggccacg 600  
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<210> 8  
 <211> 166  
 <212> PRT  
 <213> Saccharum sp.

<220>  
 <221> MISC\_FEATURE  
 <223> seedy1 protein

<220>  
 <221> MISC\_FEATURE  
 <223> seedy1 protein (partial N term)

<220>  
 <221> MISC\_FEATURE  
 <222> (70)..(70)  
 <223> Xaa can be any amino acid

<400> 8

Met Glu Glu Asp Pro Leu Ile Pro Leu Val His Val Trp Asn Asn Ala  
 1 5 10 15

Ala Phe Asp His Ala Ser Ser Ser Ala Trp His Ala His Ser Pro Val  
 20 25 30

Pro Ala Ser Ala Arg Arg Glu Ala Glu Gly Asp Lys Glu Asn His Arg  
 35 40 45

Pro Asp Pro Asp Pro Asp Val Glu Ala Glu Ile Gly His Ile Glu Ala  
 50 55 60

Glu Ile Leu Arg Leu Xaa Ser Arg Leu His His Leu Arg Thr Ser Lys  
 65 70 75 80

Gln Ser Glu Pro Ser Lys Arg Gly Glu Val Ala Pro Ala Pro Ala Ala  
 85 90 95

Lys Ala Lys Ala Ala Ala Ala Ala Arg Leu Arg Thr Arg Gly Leu Ser  
 100 105 110

Leu Gly Pro Leu Asp Val Ala Ala Ala Gly Asn Pro Asn Pro Leu Thr  
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115

120

125

Thr Asp Asn Gln Gln Gln Gln Pro Arg Ala Ala Gln Gly Leu Lys Pro  
 130 135 140

Ile Lys Gln Ala Thr Ala Ala Ala Gly Lys Gly Val Arg Leu Gly Pro  
 145 150 155 160

Leu Arg His Gly Arg Arg  
 165

<210> 9  
 <211> 876  
 <212> DNA  
 <213> Zea mays

<220>  
 <221> misc\_feature  
 <223> seedy1 coding sequence (partial 3' end)

<220>  
 <221> misc\_feature  
 <222> (869)..(869)  
 <223> n = a, c, g or t

<400> 9  
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 caagcagagc caaggcgagg agcgggagca taagccccag caggttcagg aggcagtcca 180  
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 tgctcccaag gattaggacc atgccgcctt ctgatgagag cccgcgtgac tcgggatgtg 540  
 ccaagcgtgt tgctgatttg gtcgggaagc gatccttctt cactgctgca ggggacgatg 600  
 gcaatctcgt tacgccctac caggcacggg tggttgaact tgaatcacc gaggcagcag 660

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cagaagaagc agaagcttga gaagtttgtc tttgatcaat tccgaagtgg cttgcatctg 720  
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 tcacatttcc tattttttcc cccttgagac attgcttagt acttttgtgt tgccttgtga 840  
 aaagagagtg gaaggttcat ctgctgatnc cttggt 876

<210> 10  
 <211> 224  
 <212> PRT  
 <213> Zea mays

<220>  
 <221> MISC\_FEATURE  
 <223> seedy1 protein (partial C term)

<400> 10

Thr Arg Pro Ala Val Arg Glu Glu Glu Gly Gln Arg Ser Lys Glu His  
 1 5 10 15

Ala Val Pro Ala Arg Pro Trp Pro Ser Ser Asn Ala Arg His Pro Leu  
 20 25 30

Asp Ala Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala Arg Ser Gly  
 35 40 45

Ser Ile Ser Pro Ser Arg Phe Arg Arg Gln Ser Thr Ser Lys Ala Ala  
 50 55 60

Glu Thr Arg Ala Gly Asn Ala Lys Pro Thr Glu Ala Thr Arg Gly Gly  
 65 70 75 80

Ser Glu Ala Val Asn His Thr Ser Asn Val Ala Thr Thr Lys Arg Pro  
 85 90 95

Ala Gly Ser Ser Lys Val Arg Val Val Pro Ser Arg Tyr Ser Ile Pro  
 100 105 110

Pro Gly Ser Ser Leu Ala Ala Val Thr Gln Gly Asn Arg Cys Lys Gln  
 115 120 125

# SequenceDec208.txt

Ser Leu Pro Gly Ser Ala Thr Glu Thr Arg Val Asn Leu Thr Glu Pro  
130 135 140

Pro Asn Asp Glu Leu Ser Pro Glu Glu Leu Ala Lys Val Ala Glu Leu  
145 150 155 160

Leu Pro Arg Ile Arg Thr Met Pro Pro Ser Asp Glu Ser Pro Arg Asp  
165 170 175

Ser Gly Cys Ala Lys Arg Val Ala Asp Leu Val Gly Lys Arg Ser Phe  
180 185 190

Phe Thr Ala Ala Gly Asp Asp Gly Asn Leu Val Thr Pro Tyr Gln Ala  
195 200 205

Arg Val Val Glu Leu Glu Ser Pro Glu Ala Ala Ala Glu Glu Ala Glu  
210 215 220

<210> 11  
<211> 1257  
<212> DNA  
<213> Arabidopsis thaliana

<220>  
<221> misc\_feature  
<223> seedy1 coding sequence

<400> 11  
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tctcacctca acgaatcatt cgattccgat tgtagcaagg agaatcagtt tccgatttcg 180  
gtttcctctt cgctccaatc ctcagtctcg atcaccgaag ctccgtcagc aaaatccaag 240  
accgtgaaga ccaaattccgc cgcagatcgg agtaaaaagc gagatatcga tgcagagatc 300  
gaagaagtag agaaggagat cggacgatta tcgacgaaat tggagtcgct ccgattagag 360  
aaggcggagc aaaccgcaag aagcattgct atacgtggaa gaatcgttcc ggcgaagttc 420  
atggaatcat ctcagaaaca agtgaaattc gacgattcgt gttttacagg atcgaaatca 480



SequenceDec208.txt

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agagccactc gtagaggcgt tagtcttgga ccagcggaga tattcaattc cgccaagaaa      540
tctgaaactg tgactcctct tcaatcagct cagaatcgac gcaagtcttg tttctttaag      600
cttcctggaa tcgaagaagg tcaagtgcg acacgaggta aaggaagaac gagtttgagt      660
ctgagtccga gatctcgcaa agcgaaaatg acggcagctc agaagcaagc agctacgacg      720
gtgggggtcaa agagagctgt gaagaaagaa gaaggagttc tcttaacaat ccagcctaag      780
aggctattca aagaagatga aaagaatggt tctttaagga aaccattgaa accaggaaga      840
gttggtggcta gtaggtacag tcaaatgggt aaaacgcaga ctggagagaa agatgttagg      900
aaaagggtcgt tgcctgagga tgaagagaaa gagaatcata agaggtcgga gaagagaaga      960
gcttctgatg aaagtaacaa gagtgaaggg agagtgaaga agagatggga gattccaagt     1020
gaagttgatc tgtatagcag tggtgagaac ggtgacgagt ctctatagt taaggagcta     1080
cctaagatca gaacgcttcg tcgtgtggga gggagccctc gtgattcagg tgctgctaag     1140
agagttgcag aattacaagc caaggatcgt aacttcactt tttgccagct tctgaagttt     1200
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<210> 12
<211> 402
<212> PRT
<213> Arabidopsis thaliana

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<220>
<221> MISC_FEATURE
<223> seedy1 protein

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<400> 12

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Met Thr Ser Ile Glu Ala Thr Glu Thr Leu Asn Ala Pro Pro Lys Leu
1           5           10           15

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Gln Ile Trp Asn Asn Ala Ala Phe Asp Asp Gly Asp Ser Gln Ile Thr
          20           25           30

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Ser Ala Ile Glu Ala Ser Ser Trp Ser His Leu Asn Glu Ser Phe Asp
          35           40           45

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SequenceDec208.txt

Ser Asp Cys Ser Lys Glu Asn Gln Phe Pro Ile Ser Val Ser Ser Ser  
50 55 60

Leu Gln Ser Ser Val Ser Ile Thr Glu Ala Pro Ser Ala Lys Ser Lys  
65 70 75 80

Thr Val Lys Thr Lys Ser Ala Ala Asp Arg Ser Lys Lys Arg Asp Ile  
85 90 95

Asp Ala Glu Ile Glu Glu Val Glu Lys Glu Ile Gly Arg Leu Ser Thr  
100 105 110

Lys Leu Glu Ser Leu Arg Leu Glu Lys Ala Glu Gln Thr Ala Arg Ser  
115 120 125

Ile Ala Ile Arg Gly Arg Ile Val Pro Ala Lys Phe Met Glu Ser Ser  
130 135 140

Gln Lys Gln Val Lys Phe Asp Asp Ser Cys Phe Thr Gly Ser Lys Ser  
145 150 155 160

Arg Ala Thr Arg Arg Gly Val Ser Leu Gly Pro Ala Glu Ile Phe Asn  
165 170 175

Ser Ala Lys Lys Ser Glu Thr Val Thr Pro Leu Gln Ser Ala Gln Asn  
180 185 190

Arg Arg Lys Ser Cys Phe Phe Lys Leu Pro Gly Ile Glu Glu Gly Gln  
195 200 205

Val Thr Thr Arg Gly Lys Gly Arg Thr Ser Leu Ser Leu Ser Pro Arg  
210 215 220

Ser Arg Lys Ala Lys Met Thr Ala Ala Gln Lys Gln Ala Ala Thr Thr  
225 230 235 240

Val Gly Ser Lys Arg Ala Val Lys Lys Glu Glu Gly Val Leu Leu Thr  
245 250 255

# SequenceDec208.txt

Ile Gln Pro Lys Arg Leu Phe Lys Glu Asp Glu Lys Asn Val Ser Leu  
260 265 270

Arg Lys Pro Leu Lys Pro Gly Arg Val Val Ala Ser Arg Tyr Ser Gln  
275 280 285

Met Gly Lys Thr Gln Thr Gly Glu Lys Asp Val Arg Lys Arg Ser Leu  
290 295 300

Pro Glu Asp Glu Glu Lys Glu Asn His Lys Arg Ser Glu Lys Arg Arg  
305 310 315 320

Ala Ser Asp Glu Ser Asn Lys Ser Glu Gly Arg Val Lys Lys Arg Trp  
325 330 335

Glu Ile Pro Ser Glu Val Asp Leu Tyr Ser Ser Gly Glu Asn Gly Asp  
340 345 350

Glu Ser Pro Ile Val Lys Glu Leu Pro Lys Ile Arg Thr Leu Arg Arg  
355 360 365

Val Gly Gly Ser Pro Arg Asp Ser Gly Ala Ala Lys Arg Val Ala Glu  
370 375 380

Leu Gln Ala Lys Asp Arg Asn Phe Thr Phe Cys Gln Leu Leu Lys Phe  
385 390 395 400

Glu Glu

<210> 13

<211> 3074

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence of the [PRO0090 - CDS0689 - terminator] expression cassette

<400> 13

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60

SequenceDec208.txt

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ttattgtaaa gttctacaaa gctaatttaa aagttattgc attaacttat ttcattattac	180
aaacaagagt gtcaatggaa caatgaaaac catatgacat actataatTTt tgTTTTtatt	240
attgaaatta tataattcaa agagaataaa tccacatagc cgtaaagtTc tacatgtggt	300
gcattaccaa aatatatata gcttacaaaa catgacaagc ttagtttgaa aaattgcaat	360
ccttatcaca ttgacacata aagtggagtga tgagtcataa tattatttttC tttgctaccc	420
atcatgtata tatgatagcc acaaagttac tttgatgatg atatcaaaga acatttttag	480
gtgcaccta cagaatatcc aaataatatg actcacttag atcataatag agcatcaagt	540
aaaactaaca ctctaaagca accgatggga aagcatctat aaatagacaa gcacaatgaa	600
aatcctcatc atccttcacc acaattcaaa tattatagtt gaagcatagt agtaatttaa	660
atcaactagg gatatcacia gtttgtacaa aaaagcaggc tggtaccggt ccggaattcc	720
cgggatatcg tcgaccacg cgtccgctga cgcgtgggtt ccactacatc aagacatcta	780
ctacactcat cttttttgca cttattgggt gtaaattttt gaaaccagT tgagaaaaat	840
gagtgtgtta caatacccag aagggttgga cccagcagat gttcagatat ggaacaatgc	900
agcatttgat aatggagatt ctgaagattt gtcttcgctg aaacgttctt ggtctcctct	960
gaaaccctt tcggttaggc catcagattc ctttgaatct gatttgtcaa gtaaggaaaa	1020
tcaaactcct ttatttgaga attcatctgt taatctctca tctccgttac ccataaagcc	1080
acttaaccct aatggggctc tggaaaattc aagactcaag ccgaacaagc ccaattccaa	1140
acagagtctt gatgagatgg cggctagaaa gagcggaaag ggaaatgatt tccgtgatga	1200
gaagaaaata gacgaggaaa ttgaagaaat tcagatggag attagtaggt tgagttcaag	1260
attagaggct ttgagaattg aaaaggctga gaaaactgtt gctaagactg ttgaaaagcg	1320
aggaagggtt gtggcagcaa agtttatgga gccaaaacaa agtggttatta agattgaaga	1380
gcgtatatca atgagtgcaa gaacaaaggT ggagcagaga aggggtctta gtttaggacc	1440
atctgagatt ttactggaa cgcggcggcg agggttgagt atggggccat cagatattct	1500
agcagggaca acaaaggcac ggcaattggg aaagcaagag atgattatta ctctattca	1560
gccaatacaa aacaggcgaa agtcgtgttt ttggaagctt caagagattg aagaagaggg	1620

## SequenceDec208.txt

aaaaagttca agccttagtc ctaaatacaag aaaaactgct gcaagaacaa tggttacaac	1680
aaggcaggca gttactacaa ttgcatcaaa gaagaatttg aaaaaagatg atggactttt	1740
gagttcagtt cagccaaaga agttgtttta agatctcgaa aagtctgctg ctgctaataa	1800
gaagccccag aggccgggga gggttgtggc tagtaggtat aatcagagta caattcagtc	1860
atcagtagtg agaaagaggt ctttacctga aaatgataag gatgagagta agagaaatga	1920
taagaaacgg tcgttatctg tagggaaaac gcgtgtgtct caaactgaga gcaagaattt	1980
gggtactgaa agtaggggtga aaaagagatg ggaaattcct agtgagattg tagttcatgg	2040
aaacacagag agtgagaaat ctccactaag cattattgtg aagcctgatt tgcttccgcg	2100
aattaggatt gctcgggtgtg tgaatgagac tcttagggat tctggacctg ctaaaagaat	2160
gatagagttg ataggcaaga aatcgTTTTT cagtagtgat gaagataagg agccacctgt	2220
ctgtcaagtt ttaagTTTTT cagaggaaga tgctgaagag gaataatgtg taataaaggg	2280
agctgctaac tcttttcatg ctctttcaat tttcaatcct gccttttaat ttttgttcat	2340
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ccaagcttac gcgtacccag ctttcttgta caaagtgggt atatcacaag cccgggcggg	2580
cttctagggga taacagggtg attatatccc tctagatcac aagcccgggc ggtcttctac	2640
gatgattgag taataatgtg tcacgcatca ccatgggtgg cagtgtcagt gtgagcaatg	2700
acctgaatga acaattgaaa tgaaaagaaa aaaagtactc catctgttcc aaattaaaat	2760
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atttgttatc atccgggcgg tcttctaggg ataacagggt aattatatcc ctctagacaa	2880
cacacaacaa ataagagaaa aaacaaataa tattaatttg agaatgaaca aaaggaccat	2940
atcattcatt aactcttctc catccatttc catttcacag ttcgatagcg aaaaccgaat	3000
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cataatactc gaac	3074

SequenceDec208.txt

<211> 668  
 <212> DNA  
 <213> Oryza sativa

<220>  
 <221> misc\_feature  
 <223> prolamin RP6 promoter sequence

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 gttattgtaa agttctacaa agctaattta aaagttattg cattaactta tttcatatta 180  
 caaacaagag tgtcaatgga acaatgaaaa ccatatgaca tactataatt ttgtttttat 240  
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 tgcattacca aaatatatat agcttacaaa acatgacaag cttagtttga aaaattgcaa 360  
 tccttatcac attgacacat aaagtgagtg atgagtcata atattatttt tcttgctacc 420  
 catcatgtat atatgatagc cacaaagtta ctttgatgat gatatcaaag aacattttta 480  
 ggtgcaccta acagaatatc caaataatat gactcactta gatcataata gagcatcaag 540  
 taaaactaac actctaaagc aaccgatggg aaagcatcta taaatagaca agcacaatga 600  
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 caacaaca 668

<210> 15  
 <211> 7  
 <212> PRT  
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<220>  
 <223> Motif 1 CORE SEQUENCE

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(2)  
 <223> Xaa can be any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(6)

<223> Xaa can be any amino acid

<400> 15

Trp Xaa Asn Ala Xaa Xaa Asp  
1 5

<210> 16

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Motif 2 CORE SEQUENCE

<220>

<221> MISC\_FEATURE

<222> (4)..(5)

<223> Xaa can be any amino acid

<400> 16

Lys Glu Asn Xaa Xaa Pro  
1 5

<210> 17

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> Motif 3 (coiled coil) CORE SEQUENCE

<220>

<221> MISC\_FEATURE

<222> (2)..(7)

<223> Xaa can be any amino acid within a stretch of 1 to 6 amino acids

<220>

<221> MISC\_FEATURE

<222> (4)..(5)

<223> Xaa can be any amino acid

<220>

<221> MISC\_FEATURE

<222> (8)..(10)

<223> Xaa can be any amino acid

# SequenceDec208.txt

<220>  
 <221> MISC\_FEATURE  
 <222> (12)..(13)  
 <223> Xaa can be any amino acid

<220>  
 <221> misc\_feature  
 <222> (14)..(15)  
 <223> Xaa can be any naturally occurring amino acid

<220>  
 <221> misc\_feature  
 <222> (17)..(18)  
 <223> Xaa can be any naturally occurring amino acid

<400> 17

Glu Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa Arg Leu Xaa Xaa Xaa Leu  
 1 5 10 15

Xaa Xaa Leu Arg  
 20

<210> 18  
 <211> 29  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Motif 4 CORE SEQUENCE

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(3)  
 <223> Xaa can be any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(14)  
 <223> Xaa can be any amino acid within a stretch of 1 to 10 amino acids

<220>  
 <221> MISC\_FEATURE  
 <222> (19)..(20)  
 <223> Xaa can be any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (23)..(28)



SequenceDec208.txt

<223> Xaa can be any amino acid within a stretch of 1 to 6 amino acids

<400> 18

Leu Pro Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Asp  
1 5 10 15

Ser Gly Xaa Xaa Lys Arg Xaa Xaa Xaa Xaa Xaa Xaa Lys  
20 25